IN THE CLAIMS:

1.-12. (Cancelled).

13. (Previously presented) An implantable hearing aid transducer comprising:

a transducer body;

an actuator movable relative to the transducer body to stimulate an auditory component when the actuator is interfaced with the auditory component; and

a driver comprising a variable reluctance motor to move the actuator in response to an input current, wherein an output force of the variable reluctance motor is substantially linearly related to the input current.

14. (Previously presented) The transducer of Claim 13 wherein the variable reluctance motor comprises:

a stator;

at least one drive coil to generate an electromagnetic field in response to an input current;

an armature movable relative to the stator in response to generation of the electromagnetic field; and

at least one magnetic member to generate a biasing force, wherein the at least one magnetic member is located relative to the armature to cause the biasing force to act on the armature in a substantially balanced manner.

15. (Original) The transducer of Claim 14 comprising:

a biocompatible enclosure, enclosing the variable reluctance motor.

16. (Original) The transducer of Claim 15 wherein the biocompatible enclosure comprises:

a first biocompatible enclosure enclosing the armature and a second biocompatible enclosure enclosing the stator.

17. (Original) The transducer of Claim 14 comprising:

at least one member to laterally support the armature relative to the stator and permit axial movement of the armature relative to the stator.

18. (Previously presented) The transducer of Claim 14 wherein the actuator is selectively interconnectable to the armature along a continuum of positions.

19. (Original) The transducer of Claim 14 wherein the at least one magnetic member is a permanent magnet member.

20. (Original) The transducer of Claim 14 wherein the at least one magnetic member is an electromagnetic member.

21. (Original) The transducer of Claim 14 wherein the biasing force on the armature is greater than a force induced on the armature by the electromagnetic field generated by the drive coil.

22. (Original) The transducer of Claim 14 wherein the at least one magnetic member is located substantially outside of a path traveled by the electromagnetic field induced by the at least one drive coil.

23. (Original) The transducer of Claim 14 comprising:

a first and second drive coil electrically connected to generate the electromagnetic field in response to the input current.

24. (Original) The transducer of Claim 14 wherein in response to an input current in a first direction the electromagnetic field generated by the at least one drive coil increases a first portion of the biasing force and decreases a second portion of the biasing force to move the armature in a first direction and in response to an input current in a second direction the electromagnetic field generated by the at least one drive coil increases the second portion of the biasing force and decreases the first portion of the biasing force to move the armature in a second direction.

25. (Original) The transducer of Claim 24 wherein the input current is an alternating current.

26.-29. (Cancelled).

30. (Previously presented) The transducer of Claim 14 comprising:

a back iron that defines a path of travel for the electromagnetic field that is substantially magnetically conductive.

31. (Previously presented) The transducer of Claim 30 wherein the at least one magnetic member is positioned within the back iron and substantially outside of a path traveled by the electromagnetic filed induced by the at least one drive coil.

32. (Previously presented) The transducer of Claim 17 comprising:

openings at each end of the transducer.

33. (Previously presented) The transducer of Claim 17 wherein the at least one lateral support member confines the armature movement relative to the stator to allow only substantially linear movement of the armature relative to the stator.

34. (Previously presented) The transducer of Claim 19 wherein the at least one permanent magnet member is annular in shape and radially polarized.

35. (Previously presented) The transducer of Claim 19 wherein the at least one permanent magnet member is a plurality of magnets circumscribing the armature, and wherein each permanent magnet member is in facing relationship with the permanent magnet members immediately adjacent; and

each permanent magnet member contains two poles oriented substantially 180 degrees apart from each other and oriented with a first pole facing the armature and a second pole opposite to the first pole facing away from the armature.

36. (Previously presented) The transducer of Claim 19 wherein the at least one permanent magnet member is comprised of two separate and opposing permanent magnet members located on opposing first and second sides of the armature, and wherein each pole of each of the permanent magnetic members is in a facing relationship with a pole piece of the same or like polarity on the permanent magnetic member on the opposite side of the armature.